

AMENDMENT IN THE CLAIMS

Please amend claims 9 and 26 to read as follows:

Claim 1-8. (Canceled)

1           9. (Currently Amended) A method for manufacturing an optical fiber preform, comprising  
2 the steps of:

3           depositing a clad layer and a core layer on an inner surface of a preform tube by using a first  
4 heater, thereby forming a deposited tube;

5           shrinking one end of the deposited tube by using said first heater, thereby sealing the one end  
6 of the deposited tube;

7           arranging the deposited tube having the sealed end and an open end in such a fashion that it  
8 extends vertically through a circular heater;

9           moving the circular heater to said one end of the deposited tube, and then adjusting a heating  
10 temperature of the circular heater to be not lower than a softening point of the deposited tube; and

11           shrinking and closing the deposited tube by heating the deposited tube while moving the  
12 circular heater at a desired speed, wherein a flame pressure of said circular heater during the  
13 shrinking and closing step is higher than a flame pressure of said first heater during the deposition  
14 step.

1           10. (Previously Presented) The method according to claim 9, further comprising the step of:  
2 after the arranging step, removing a contaminant existing in an interior of the deposited tube.

1           11. (Previously Presented) The method according to claim 9, wherein the shrinking and  
2 closing step is carried out under the condition in which the deposited tube rotates around its  
3 cylindrical axis, and an interior of the deposited tube is maintained at a negative pressure.

1           12. (Previously Presented) The method according to claim 9, wherein the circular heater is  
2 a furnace, and inert gas is supplied to the furnace to prevent an oxidation of the furnace at a heat  
3 generating region.

1           13. (Previously Presented) The method according to claim 9, wherein the shrinking and  
2 closing step further comprises the step of removing a moisture in an interior of the deposited tube.

Claim 14-17. (Canceled)

1           18. (Previously Presented) A method for manufacturing an optical fiber preform, comprising  
2 the steps of:

3           preparing a deposited tube by depositing a clad layer and a core layer on an inner surface of  
4 a horizontally arranged preform tube;

5           sealing one end of the deposited tube;

6           attaching a rod to said one end of the deposited tube;

7           arranging the rod-joined deposited tube vertically and arranging a circular heater around the  
8 tube;

9 removing a contaminant from an interior of the deposited tube;

10 placing the circular heater above said one end of the deposited tube and adjusting a  
11 temperature of the circular heater to a temperature not lower than a softening point of the deposited  
12 tube and maintaining this temperature until the temperature is stabilized;

13 applying negative pressure to the interior of the deposited tube using a vacuum pump; and

14 shrinking the deposited tube while rotating the deposited tube and moving the circular heater  
15 from said one end to an unsealed end of the deposited tube simultaneously with the applying step.

1 19. (Original) The method of claim 18, said step of preparing a deposited tube further  
2 comprising:

3 injecting a gas for forming a deposit into a first end of the preform tube and exhausting gas  
4 through a second end of the preform tube; and

5 said step of sealing one end comprising sealing said second end of the preform tube.

1 20. (Original) The method of claim 18, said step of shrinking the deposited tube further  
2 comprising rotating the tube at a rate of less than approximately 10 rpm.

1 21. (Original) The method of claim 18, further comprising the step of:  
2 repeating said step of shrinking the deposited tube.

1 22. (Previously Presented) The method of claim 18, wherein the circular heater comprises  
2 a furnace.

1           23. (Original) The method of claim 22, further comprising the step of:  
2           supplying an inert gas to said furnace for preventing oxidation of the furnace.

1           24. (Previously Presented) The method of claim 18, wherein the removing step further  
2           comprises the steps of:

3           moving the circular heater to the one end of the deposited tube, and then adjusting the heating  
4           temperature of the circular heater to be lower than a softening point of the deposited tube; and  
5           heating the deposited tube while moving the circular heater at a desired speed, thereby  
6           exhausting contaminants existing in the interior of the deposited tube.

1           25. (Previously Presented) The method of claim 18, said step of shrinking the circular heater  
2           further comprising:  
3           injecting chlorine gas into the deposited tube.

1           26. (Currently Amended) A method for manufacturing an optical fiber preform, comprising  
2           the steps of:

3           depositing a clad layer and a core layer on an inner surface of a preform tube in a horizontal  
4           lathe, thereby forming a deposited tube;

5           shrinking one end of the deposited tube, thereby sealing the one end of the deposited tube;

6           attaching a rod to said one end of the deposited tube;

7           separating the deposited tube attached to said rod from said horizontal lathe;

8 mounting the deposited tube attached to said rod in a vertical lathe in such a fashion that it  
9 extends vertically through a circular heater;

10 placing the circular heater around said one end of the deposited tube;

11 setting a heating temperature of the circular heater to a first heating temperature which is not  
12 lower than the softening point of the deposited tube;

13 heating the deposited tube while moving the circular heater with said first heating  
14 temperature from said one end of the deposited tube to an unsealed end of the deposited tube at a  
15 desired speed while applying negative pressure to a hollow of the deposited tube;

16 moving the circular heater from said unsealed end to said one end of the deposited tube;

17 setting a heating temperature of the circular heater to a second heating temperature which is  
18 not lower than the softening point of the deposited tube;

19 maintaining said temperature until said temperature is stabilized; and

20 shrinking the deposited tube by moving the circular heater with said second heating  
21 temperature from said one end to said unsealed end of the deposited tube at a desired speed while  
22 applying negative pressure to said hollow of the deposited tube.

1 27. (Previously Presented) The method according to claim 26, wherein the desired speed  
2 in the heating step is in the range of 20 to 40 mm/min.

1 28. (Previously Presented) The method according to claim 26, further comprising the step  
2 of removing moisture generated in the interior of the deposited tube due to heat of the circular heater.

1           29. (Previously Presented) The method according to claim 28, wherein the step of removing  
2           moisture further comprises the step of supplying chlorine gas to said hollow of the deposited tube.

1           30. (Previously Presented) The method according to claim 26, further comprising the step  
2           of rotating the deposited tube about its cylindrical axis simultaneously with the step of shrinking.

1           31. (Previously Presented) The method according to claim 26, further comprising the step  
2           of:  
3           repeating the step of shrinking.

1           32. (Previously Presented) The method according to claim 10, wherein the step of removing  
2           further comprises the steps of:  
3           placing the circular heater to the one end of the deposited tube, and then adjusting the heating  
4           temperature of the circular heater to be lower than the softening point of the deposited tube; and  
5           heating the deposited tube while moving the circular heater at a desired speed, thereby  
6           exhausting contaminants existing in the interior of the deposited tube.

1           33. (Previously Presented) The method according to claim 13, wherein the step of removing  
2           a moisture further comprises the step of supplying chlorine gas to the interior of the deposited tube.